

Travels with diseases

Who gave Pinta to the Santa Maria? Tropical Diseases in a Temperate Climate

by Robert S. Desowitz
Norton: 1997. Pp. 228. \$25

Len Goodwin

Bob Desowitz has spent many years in tropical countries as a researcher and teacher of parasitology. He is now a bearded patriarch with an emeritus chair in Honolulu, and from time to time he sets down his view of the past, present and future of some aspect of the science.

The parasites of animals developed and varied along with their hosts and, when the continents separated, those in the New World took different lines from those in the Old. So it is not surprising that the exchange of people and parasites that occurred during the age of discovery led to epidemics of disease that changed the course of history, the maps of the world and the fate of nations. Desowitz outlines some of the most exciting.

European sailors took home spirochaetes from America and started an epidemic of syphilis. The pinta of the book's title is a skin infection. Missionaries carried measles, smallpox and benign tertiary malaria to the New World, and the slaves from Africa added malignant malaria. The epidemics of unknown diseases, together with terror and despair, killed off most of the Amerindians.

Yellow fever had a profound effect. Desowitz describes the epidemics that enabled the United States to buy vast areas of land that the European powers could no longer support. He describes the work of Wal-

ter Reed's team that elucidated the transmission of the virus by mosquitoes. By targeting the species of mosquitoes that carry yellow fever and malaria, William Crawford Gorgas was able to complete the construction of the Panama Canal, which had been abandoned by the French.

There is an interesting description of the influence of the millionaire philanthropist John D. Rockefeller and the foundation he financed in clearing hookworm from the southern United States, helping to control malaria and dealing a final blow to yellow fever by the development of a safe vaccine.

Exotic disease is at present under control in temperate countries but new introductions are a constant danger, as shown by unexpected outbreaks, usually traceable to immigrants from endemic areas. Temperate climates can support the vectors of many tropical infections and, with global warming, are likely to become even more favourable. South American trypanosomiasis or Chagas' disease is carried by a bug; suitable species, together with reservoir hosts — ground squirrels and dogs — are widely distributed in the United States. It would not be too difficult for an epidemic to occur and there is no really effective treatment. Also, as the remaining tracts of wilderness are invaded, new infections such as Kyanasur Forest and Ebola viruses may be transmitted from animals to humans.

New drugs for exotic diseases are not a priority for the pharmaceutical industry, although the old cures are becoming less effective. A serious situation could develop before long. Desowitz makes the point that fundamental discoveries that have changed the face of medicine have often come from completely unrelated fields of science and he appeals for more support to be given to basic research with no immediate short-term targets.

The style is chatty, wry and racy — the book was probably derived from popular lectures or student seminars — and the narrative is broken by frequent philosophical digressions, personal recollections and anecdotes. There are a few terrible illustrations but a dearth of references and no index. It would make ideal, informative reading for a fairly long flight to a tropical country. □

Len Goodwin is at Shepperlands Farm, Park Lane, Finchampstead, Berkshire RG40 4QF, UK.

New journals

This year, *Nature's* annual new journals review supplement will appear in the issue of 11 September. Publishers and learned societies are invited to submit journals for review, as well as details of any eligible electronic journals, taking note of the following criteria:

- Journals that first appeared during or after June 1995 and issued at least four separate numbers by the end of May 1997 will be considered.
- Journals covering any aspect of science are eligible, although those dealing with clinical medicine and pure mathematics are excluded, as are publications of abstracts.
- Frequency of publication must be at least three times a year. The main language used must be English. Translation journals in English are, of course, eligible.
- Deadline for submission is 6 June.

When submitting journals for review, please send at least four different issues (the first, the most recent and any two others) of each title, together with full details of subscription rates. For further information please contact Peter Tallack, *Nature*, Macmillan Magazines, Porters South, Crinan Street, London N1 9XW, UK. Tel: +44 (0)171 843 4567. e-mail: p.tallack@nature.com.

New in paperback

Why Things Bite Back: Predicting the Problems of Progress

by Edward Tenner
Fourth Estate, £7.99

A look at the paradoxes and unintended consequences of technology. It "offers a much-needed healthy balance between contemporary technological utopian fantasies and neo-Luddite despair. This superb guide to our high-tech world deserves a wide readership", wrote Howard P. Segal in *Nature* 382, 504 (1996).

The Same and Not the Same

by Roald Hoffmann
Columbia University Press, \$22.50

A guide for the general reader to the art and science of chemistry. "Roald Hoffmann wants to tell readers not why chemistry is important but why he loves it", wrote Philip Ball in *Nature* 380, 34 (1996).

The Song of the Dodo: Island Biogeography in an Age of Extinction

by David Quammen
Simon & Schuster, \$17

David Quammen "summarizes in exciting, earthy prose what he learned about island biology and species extinction during eight years of adventurous travel, reading and conversation. Descriptions of places alternate with chapters on the history of ideas and accounts of conversations with biologists", wrote Lawrence B. Slobodkin in *Nature* 381, 205 (1996).

Altered States: Gene Therapy and the Retooling of Human Life

by Jeff Lyon and Peter Gorner
Norton, \$15.95, £11.95
Reviewed by David Weatherall in *Nature* 375, 545 (1995).

Grooming, Gossip and the Evolution of Human Language

by Robin Dunbar
Faber, £7.99
Reviewed by Derek Bickerton in *Nature* 380, 303 (1996).

The Artful Universe: The Cosmic Source of Human Creativity

by John D. Barrow
Penguin, £12.50; Little Brown \$17.95
Reviewed by Christopher Longuet-Higgins in *Nature* 379, 216 (1996).

The Neanderthal Enigma: Solving the Mystery of Modern Human Origins

by James Shreeve
Penguin, £8.99; Avon Books \$14
Reviewed by Jean-Jacques Hublin in *Nature* 381, 658 (1996).